

# TECHNOLOGY SERVICES

**PROGRAM:**

Application Development and Integration

**PROGRAM ELEMENT:**
**PROGRAM MISSION:**

To develop web-based (Internet and Intranet) applications in support of County residents and County Government employees that improve the accessibility of government services to the public and enhance the effectiveness and productivity of County employees

**COMMUNITY OUTCOMES SUPPORTED:**

- Enable County employees to be the best at serving their customers
- Deliver information and services to citizens at work, at home, and in the community
- Increase the productivity of government

**PROGRAM MEASURES**

	FY03 ACTUAL <sup>a</sup>	FY04 ACTUAL <sup>a</sup>	FY05 ACTUAL	FY06 ESTIMATE <sup>b</sup>	FY07 CE REC
<b>Outcomes/Results:</b>					
Website visits (000) <sup>c</sup>	NA	NA	6,223	13,557	16,946
Website page views (000) <sup>c</sup>	NA	NA	33,736	94,210	117,763
Website page hits (000) <sup>c</sup>	NA	NA	254,293	521,695	652,119
Unique visitors to the County's website (000)	NA	NA	3,186	6,654	8,318
Total number of links <sup>d</sup> found on:					
- The County's Internet web pages	NA	NA	NA	56,628	59,459
- County Intranet pages	NA	NA	NA	14,894	15,639
Number of registered users on the Enterprise Content Editing and Management System (CMS) <sup>e</sup>	NA	NA	235	274	281
<b>Service Quality:</b>					
Percentage of web portal survey respondents who:	NA	NA	NA	NA	TBD
- Rated their experience with the County's web site as "good" or "very good" compared to other web sites	NA	NA	NA	NA	TBD
- Felt that it was easy to find what they wanted or needed on the County's web site	NA	NA	NA	NA	TBD
- Felt that the site contained useful services and information	NA	NA	NA	NA	TBD
- Found the site to be visually appealing and well-designed	NA	NA	NA	NA	TBD
<b>Efficiency:</b>					
Applications maintained per workyear	NA	5.5	14.2	8.8	14.6
Average program cost per application deployed (\$)	NA	95,320	30,257	41,887	36,418
Average program cost per application maintained (\$)	NA	26,601	11,124	13,150	8,866
Average program cost per page view (cents)	NA	NA	2.2	1.2	0.9
Average program cost per on-line transaction <sup>f</sup> (\$)	NA	106.78	43.25	43.51	37.83
<b>Workload/Outputs:</b>					
Number of new Internet applications deployed	NA	8	11	12	12
Number of new Intranet applications deployed	NA	4	14	15	15
Number of Internet applications maintained	NA	27	38	43	55
Number of Intranet applications maintained	NA	16	30	43	58
Number of on-line property tax payment transactions	NA	2,220	9,979	14,000	14,350
Number of on-line solid waste hauler billing payment transactions	NA	NA	1,434	1,292	1,320
Number of other on-line payment transactions <sup>g</sup>	NA	8,492	6,075	10,700	10,970
<b>Inputs:</b>					
Workyears	6.6	7.8	4.8	9.8	7.8
Expenditures (\$)	680,783	1,143,844	756,417	1,130,938	1,007,878

**Notes:**

<sup>a</sup>Except for Inputs, most data are unavailable prior to FY05.

<sup>b</sup>Except for the Inputs, all FY06 figures are 12-month projections based on fiscal year-to-date results as of January 1, 2006. The Inputs shown are the approved FY06 budget levels.

<sup>c</sup>"Visits" correspond to the number of separate times that someone has gone to the website (e.g. the number of distinct sessions conducted at the site). "Page views" correspond to the number times a website visitor looks at a different page within the site. A "hit" corresponds to the retrieval of any item - for instance, a page or a graphic - from a web server. Thus, when a visitor calls up a web page with four graphics, that constitutes five hits: one for the page and four for the graphics.

<sup>d</sup>"Links" include links to web pages, PDF files, and Microsoft Word documents. The greater the number of such links, the greater the accessibility of information to the user.

<sup>e</sup>The Enterprise Content Editing and Management System is an application created by the Application Development and Integration Program which makes it easy for County employees to set up pages on the County's website and to manage and update the content of those pages.

<sup>f</sup>Includes on-line property tax payments, solid waste hauler billing payments, and other on-line payments (see footnote "g" below).

<sup>g</sup>Other transactions include library late fee payments; Commission for Women and Department of Economic Development class registrations; hazmat certificate registrations; purchases of call and ride, bus, and Metrorail passes; sale of zoning ordinances by the County Attorney's Office; Office of Procurement bids and subscriptions; and ball field reservations. (Note that because of the introduction of new payment processing software in FY05, ball field reservations will be excluded from the total beginning in FY06.)

**EXPLANATION:**

The Application Development and Integration Program is responsible for implementation of new web-based information technology systems in the County. The program assesses business and technical requirements, translates requirements into technology systems solutions, and defines standard process and software development methodologies to deliver the appropriate IT systems and solutions. This program also manages the County's website (<http://www.montgomerycountymd.gov>) and provides training for users on new and existing applications and web management tools. The website is part of the County's electronic government initiative, which seeks to provide cost-effective services at greater convenience to County residents and employees through the use of modern web technologies.

**PROGRAM PARTNERS IN SUPPORT OF OUTCOMES:** Office of Public Information, user departments.

**MAJOR RELATED PLANS AND GUIDELINES:** Horizon 21 Information Technology Strategic Plan: 1998, 1999; Department of Technology Services Strategic Plan: 2003; Montgomery County Technology Architecture: 2004, 2005

# TECHNOLOGY SERVICES

<b>PROGRAM:</b> Desktop Computer Modernization (DCM)	<b>PROGRAM ELEMENT:</b>
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**PROGRAM MISSION:**  
To provide up-to-date desktop PCs and software and improved levels of service (acquisition, management, Help Desk, and maintenance) to all departments at lower cost

**COMMUNITY OUTCOMES SUPPORTED:**

- Enable County employees to be the best at serving their customers
- Deliver information and services to citizens at work, at home, and in the community
- Increase the productivity of government

PROGRAM MEASURES	FY03 ACTUAL	FY04 ACTUAL	FY05 ACTUAL	FY06 BUDGET	FY07 CE REC
<b>Outcomes/Results:</b>					
Average cost saving per PC purchased via DCM (\$)	316	280	278	300	300
Average age of PCs (years)	2.3	3.0	2.7	2.4	2.2
<b>Service Quality:</b>					
Average Help Desk wait time (seconds)	6.3	2.3	8.2	<sup>b</sup> 90	<sup>b</sup> 90
Percentage of Help Desk calls resolved during initial call	96	95	95	80	80
Average time to repair a PC (hours)	3.8	2.1	3.0	<sup>c</sup> 8.0	<sup>c</sup> 8.0
<b>Efficiency:</b>					
Cost per PC covered under services (\$) <sup>d</sup>	410	410	410	368	431
Cost per service call (including installations) (\$)	147	134	142	135	130
<b>Workload/Outputs:</b>					
PCs replaced	1,804	115	2,097	2,000	2,050
PCs covered under services	6,853	6,947	7,954	7,900	8,000
Service calls performed (including installations) <sup>a</sup>	20,329	22,868	21,145	24,000	24,500
<b>Inputs:</b>					
Expenditures - purchases (\$000)	2,345	531	3,080	2,962	3,127
Expenditures - services (\$000)	2,988	3,066	3,122	3,234	3,344
Expenditures - management (\$000)	<u>717</u>	<u>634</u>	<u>667</u>	<u>661</u>	<u>730</u>
TOTAL expenditures (\$000) <sup>e</sup>	6,050	4,231	6,869	6,857	7,201
Workyears <sup>e</sup>	7.0	7.0	6.0	6.0	6.0

**Notes:**

<sup>a</sup>The number of service calls performed has increased over the years as more and more departments utilize the PC Help Desk.

<sup>b</sup>90 seconds is the contractual level of service; the actual results have been well below the contractual requirement.

<sup>c</sup>Eight hours is the contractual level of service; the actual results have been well below the contractual requirement.

<sup>d</sup>The cost per PC covered under services is a fixed contracted amount per PC, with some variability depending on the type and quality of service.

<sup>e</sup>In FY03 and FY04, DCM program expenditures and staff consisted of two contractors and five in-house positions from the Enterprise Services Program. In FY05, one contractor was converted to a County merit position. Thus, the expenditures and workyears for FY05 - FY07 include one contractor and six in-house positions from the Enterprise Services Program.

**EXPLANATION:**  
The Desktop Computer Modernization (DCM) program was developed by Montgomery County's Department of Technology Services based on a best practices approach to maintaining a modern, cost-effective desktop computing environment in the County. The program, which began in FY99, is designed to lower the total cost of ownership through standardization, asset management, Help Desk support, and maintenance services. The DCM program includes centralized management and maintenance of the County's installed base of nearly 8,000 desktop and laptop computers (as of FY05) and annual replacement for one-fourth of those PCs. The program is designed to improve the efficiency and effectiveness of County employees by ensuring that they have the appropriate, state-of-the-art computing resources they need to do their job. County DCM staff are responsible for planning, coordination, and quality assurance, and for coordinating and monitoring PC installation, moves, adds, changes, the Help Desk, and maintenance services provided by a contractor.

**PROGRAM PARTNERS IN SUPPORT OF OUTCOMES:** Office of Human Resources (training), user departments (planning, implementation).

**MAJOR RELATED PLANS AND GUIDELINES:** Horizon 21 Information Technology Strategic Plan: 1998, 1999; Telecommunications Audit Action Plan, 1998; DCM Program Best Practices and Financial Analysis, 1997.

# TECHNOLOGY SERVICES

## PROGRAM:

Geographic Information Systems

## PROGRAM ELEMENT:

Custom Maps and Data Reports Generation

## PROGRAM MISSION:

To provide timely and accurate maps and data reports that enable informed decision-making on geographically-based issues by customer departments

## COMMUNITY OUTCOMES SUPPORTED:

- Enable County employees to be the best at serving their customers
- Deliver information and services to citizens at work, at home, and in the community
- Increase the productivity of government

## PROGRAM MEASURES

	FY03 ACTUAL	FY04 ACTUAL	FY05 ACTUAL	FY06 BUDGET	FY07 CE REC
<b>Outcomes/Results:</b>					
Cost avoidance for land surveys - Department of Public Works and Transportation (\$000)	250	248	250	250	250
Cost savings on election maps - Board of Elections (\$000)	35	34	35	35	35
Cost savings on State's Attorney maps (\$000)	15	14	15	15	15
Cost savings on Economic Development maps (\$000) <sup>a</sup>	NA	NA	NA	NA	10
<b>Service Quality:</b>					
Average turnaround time for production of customized maps (days)	6.9	6.6	6.4	6.3	6.2
<b>Efficiency:</b>					
Average cost per map (\$)	85	106	103	104	105
Total reported cost saving per dollar of program cost (\$)	2.19	1.99	1.89	1.72	1.74
<b>Workload/Outputs:</b>					
Number of custom maps provided	1,604	1,405	1,550	1,680	1,700
Number of database layers updated	8	9	10	10	11
<b>Inputs:</b>					
Workyears <sup>b</sup>	2.3	2.3	2.3	2.3	2.3
Expenditures - personnel (\$000)	137	149	159	174	178

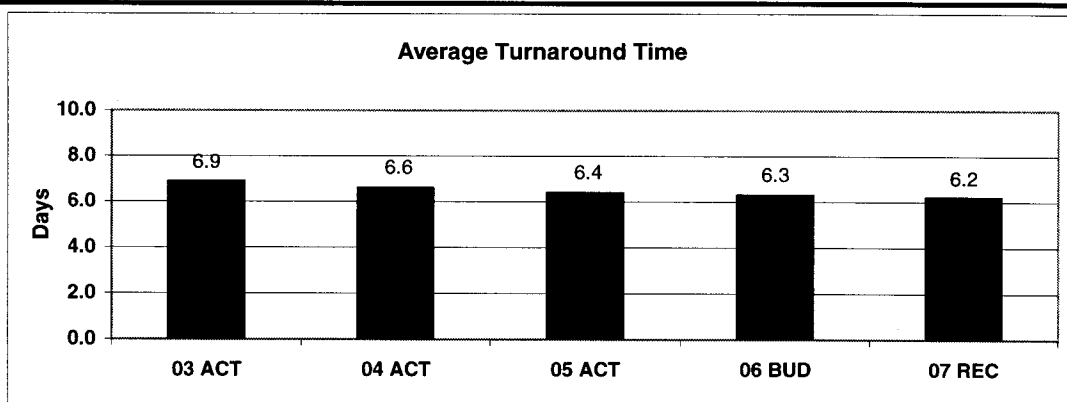
## Notes:

<sup>a</sup>The Department plans to support the production of maps for Department of Economic Development customers beginning in FY07.

<sup>b</sup>Workyears relate to staff time spent on the production of custom maps.

## EXPLANATION:

The County government has made increasing use of customized Geographic Information System (GIS) maps. While the average cost per map climbed by 21% between FY03 and FY05, the turnaround time decreased by half a day.



**PROGRAM PARTNERS IN SUPPORT OF OUTCOMES:** Maryland-National Capital Park and Planning Commission, Washington Suburban Sanitary Commission, Montgomery County Public Schools, Department of Public Works and Transportation, Department of Permitting Services, user departments and agencies, cities of Gaithersburg and Rockville, Metropolitan Washington Council of Governments.

**MAJOR RELATED PLANS AND GUIDELINES:** Horizon 21 Information Technology Strategic Plan, July 1998, 1999; Montgomery County GIS Plan, June 1996.

# TECHNOLOGY SERVICES

**PROGRAM:**

Radio Communications

**PROGRAM ELEMENT:**

Radio Maintenance

**PROGRAM MISSION:**

To provide timely and reliable communications (radio) maintenance to the Police Department, Fire and Rescue Service, Department of Homeland Security, Department of Public Works and Transportation, other departments and agencies as designated, and to the County Executive and County Council

**COMMUNITY OUTCOMES SUPPORTED:**

- Enable County employees to be the best at serving their customers
- Deliver information and services to citizens at work, at home, and in the community
- Increase the productivity of government

**PROGRAM MEASURES**

	FY03 ACTUAL	FY04 ACTUAL	FY05 ACTUAL	FY06 BUDGET	FY07 CE REC
<b>Outcomes/Results:</b>					
Percentage of services rendered without requiring a revisit	99.9	96.0	97.0	99.9	99.0
Percentage availability of radio systems infrastructure	100.0	100.0	100.0	100.0	100.0
<b>Service Quality:</b>					
Percentage of customers satisfied with Communications Maintenance Services	99.7	99.7	99.7	99.9	99.0
Average repair wait time for in-shop while-you-wait service (minutes)	47	50	43	45	45
Average turn-around time for in-shop bench service (minutes)	41	40	32	40	40
Average turn-around time for depot repair service (days)	<sup>a</sup> 27.2	14.0	14.0	14.0	14.0
<b>Efficiency:</b>					
Service requests fulfilled per workyear	248	202	172	164	174
<b>Workload/Outputs:</b>					
Number of mobile radios installed in County vehicles	1,650	1,650	1,669	1,703	1,800
Number of service requests fulfilled	<sup>b</sup> 2,277	1,660	<sup>e</sup> 4,087	1,512	1,600
Number of portable radios in active service	2,061	1,952	1,960	2,054	2,050
<b>Inputs:</b>					
Expenditures - workyears (\$000)	702	623	594	793	918
Expenditures - operations and capital outlay (\$000)	<u>668</u>	<sup>c</sup> <u>1,416</u>	<u>1,946</u>	<u>2,077</u>	<u>2,229</u>
TOTAL expenditures (\$000)	<sup>b</sup> 1,370	2,039	2,540	2,870	3,147
Workyears <sup>c</sup>	9.2	<sup>d</sup> 8.2	9.2	9.2	9.2

**Notes:**

<sup>a</sup>The FY03 actual turn-around time for depot repair service was longer than expected because of contractor transition (the existing contract expired, but the new contract was not yet in place). During the transition, in-house staff and various vendors were used for repair services on an *ad hoc* basis.

<sup>b</sup>FY03 actual expenditures were down due to the transition between the old and new radio systems - it was not cost effective to repair an old radio system which was soon to become surplus equipment.

<sup>c</sup>Beginning with the FY04 budget, radio maintenance costs for the Public Safety Communications System are included.

<sup>d</sup>The decrease in the FY04 actual workyears was due to the program's inability to fill two vacancies because of a position freeze that year.

<sup>e</sup>The FY04 increase in the number of service requests fulfilled was due to the re-programming project for all Police mobile and portable radios.

**EXPLANATION:**

The Public Safety 2000 program had a major impact on program performance between FY01 and FY03. In FY01 and FY02, work efforts were increasingly focused on keeping existing radio equipment from dying of advanced age and from decreased support and replacement spending by user departments. Some radios were abandoned without replacement. In FY03, warranty considerations, equipment changeover, and training issues had major impacts on program performance. Since the 800 Mhz radio system was implemented, there has been a continued need to maintain the eleven 800 Mhz sites located throughout the County.

**PROGRAM PARTNERS IN SUPPORT OF OUTCOMES:** User departments (planning, implementation).

**MAJOR RELATED PLANS AND GUIDELINES:** Telecommunications Audit Action Plan, 1998; Communications Maintenance Section Policies and Procedures.

# TECHNOLOGY SERVICES

**PROGRAM:**

Telecommunications Services

**PROGRAM ELEMENT:**

Desktop Telephone Services

**PROGRAM MISSION:**

To provide timely telephone and voice mail moves, adds, changes, and repairs with minimum interruption in service

**COMMUNITY OUTCOMES SUPPORTED:**

- Enable County employees to be the best at serving their customers
- Deliver information and services to citizens at work, at home, and in the community
- Increase the productivity of government

**PROGRAM MEASURES**

	FY03 ACTUAL	FY04 ACTUAL	FY05 ACTUAL	FY06 BUDGET	FY07 CE REC
<b>Outcomes/Results:</b>					
<b>Service Quality:</b>					
Average percentage of troubles <sup>a</sup> outstanding per month	1	1	1	1	1
Average days to complete a move/add/change request	3	3	3	3	3
Average time to fix a trouble (hours)	8	8	8	8	8
<b>Efficiency:</b>					
Telephone lines maintained per workyear	1,948	2,146	2,328	2,409	2,494
Voice mailboxes maintained per workyear	1,099	2,106	2,212	2,271	2,335
Troubles and work orders processed per workyear	333	745	<sup>c</sup> 1,212	962	1,041
<b>Workload/Outputs:</b>					
Telephone lines maintained	15,582	15,234	16,531	17,104	17,704
Voice mailboxes maintained	8,791	14,953	15,702	16,123	16,575
Average telephone work orders processed per month	179	286	420	357	410
Average troubles fixed per month	43	155	297	212	206
<b>Inputs:</b>					
Workyears	8.0	7.1	7.1	7.1	7.1
Expenditures (\$000) <sup>b</sup>	4,635	724	1,057	1,053	882

**Notes:**
<sup>a</sup>See the "Explanation" below for a definition of what constitutes a "trouble."

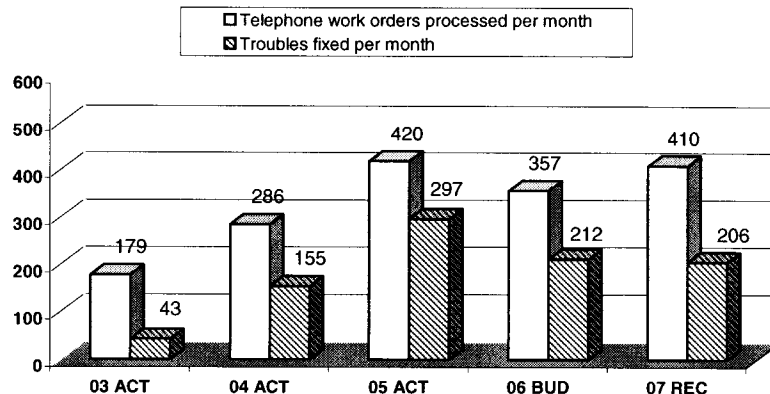
<sup>b</sup>The FY03 expenditures include a Council Supplemental of \$3,934,115 for an Automatic Call Distributor for the E911 primary and secondary County communication centers. This "turnkey" system included planning, assessment, installation, design, implementation, reporting, testing, acceptance, and maintenance. The FY04 expenditures do not include the FY03 supplemental appropriation. The FY05 expenditures includes a one-time expenditure of \$284,550 to migrate the Executone telephone key systems to the County's PBX platform. The FY06 budget includes a one-time expenditure of \$186,700 to implement IVR Platform/Infrastructure Expansion.

<sup>c</sup>Processed work orders increased due to the migration of Executone users to the County's PBX platform.

**EXPLANATION:**

The graph shows the average number of telephone work orders processed and troubles repaired per month. Telephone work orders include moving, adding, or changing telephones or telephone numbers, as well as program changes in PBX software and voice mail systems. Troubles can include problems with the telephone system, jacks, building wiring, or telephone sets. The number of telephone work orders has increased due to the implementation of a new PBX on June 30, 1999, and as a result of more thorough documentation of work (for instance, every request for a change in any telephone service is now documented). Triaging of reported problems by Help Desk and customer service staff has helped to hold down the number of reported troubles needing repairs.

**Average Number of Telephone Work Orders and Troubles Fixed Per Month**


**PROGRAM PARTNERS IN SUPPORT OF OUTCOMES:** Department of Technology Services IT Help Desk and Network Management; Office of Procurement (contract management support); user departments.

**MAJOR RELATED PLANS AND GUIDELINES:** Horizon 21 Information Technology Strategic Plan, 1999; Telecommunications Audit Action Plan, 1998.